

Please replace the paragraph beginning at page 8, line 13 (i.e. third paragraph) with the following rewritten paragraph:

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Thus, in the present invention, the user is assigned a code and the beam moves with the user until the user interferes with another user with the same code. Then, another code is assigned to the beam corresponding with the user.

Please delete lines 1-19 of page 9 (the first occurrence).

IN THE CLAIMS:

2. (Amended) A communications system comprising:

a first mobile user device;

a second user device; and,

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a high altitude communications device in communication with the first mobile user device and the second user device, the high altitude communications device assigning a first beam having a first code to the first mobile user and assigning a second beam having the first code to the second user, said device continually determining whether an interference occurs between the first beam and the second beam and, when an interference occurs, reassigning a second code to the first beam.

6. (Amended) A system as recited in claim 5 wherein said satellite is selected from the group consisting of a medium earth orbit satellite, a low earth orbit satellite, and a geostationary satellite.

9. (Amended) A system as recited in claim 8 wherein said gateway station couples said first mobile user device and said second user device to terrestrial networks through the high altitude communications device.

10. (Amended) A method of operating a communications system comprising the steps of:

introducing a first user into the system;

establishing a plurality of code bins;

when an empty code bin exists, assigning the first user to an empty code bin;

when no empty code bin exists, determining whether the first user may be assigned to a first one of the plurality of code bins by performing an interference check;

when the interference check is not passed, determining a second one of the plurality of code bins;

performing an interference check with the second of the plurality of code bins; and,

when an interference of the second code bin is not found, assigning the first user a second code associated with the second bin.

11. (New) A method as recited in claim 10 further comprising introducing subsequent users into the system;

performing an interference check for each of the subsequent users;

assigning a non-interference code to each of the subsequent users.

12. (New) A method as recited in claim 10 further comprising continually determining whether an interference occurs between the first user and subsequent users, when an interference occurs assigning a non-interfering code thereto.

13. (New) A method as recited in claim 10 wherein introducing a first user into the system comprises introducing the first user into the system comprising an automotive communication system.

14. (New) A method as recited in claim 10 wherein introducing a first user into the system comprises introducing the first user into the system comprising a personal digital assistant communication system.

15. (New) A method as recited in claim 10 wherein introducing a first user into the system comprises introducing the first user into the system comprising a cellular phone communication system.

16. (New) A method as recited in claim 10 wherein introducing a first user into the system comprises introducing the first user into the system comprising a business-based communication system.

17. (New) A method as recited in claim 10 wherein introducing a first user into the system comprises introducing the first user into the system comprising a home-based communication system.

18. (New) A method as recited in claim 1 further comprising the step of monitoring a number of users of a code in each of the plurality of code bins;
wherein the step of assigning the first user a second code comprises assigning a second code to the first user corresponding to a second code bin having a least number of users.

19. (New) A system as recited in claim 2 wherein said communication system comprises a personal digital assistant communication system.

20. (New) A system as recited in claim 2 wherein said communication system comprises a cellular phone communication system.

21. (New) A system as recited in claim 2 wherein said communication system comprises a business-based communication system.

22. (New) A system as recited in claim 2 wherein said communication system comprises a home-based communication system.

23. (New) A method for code management system comprising:
assigning each one of a plurality of users a code from a plurality of non-interfering codes;
moving the plurality of users;
continually monitoring the plurality of users for an interference; and
when a first user of the plurality of users interferes with another of said plurality of users, assigning another non-interfering code to said first user.

24. (New) A method as recited in claim 23 wherein assigning a non-interfering code to said first user, comprises assigning a non-interfering code to said first user from a plurality of code bins.

25. (New) A method for code management comprising:
establishing a plurality of code bins having a respective plurality of codes;
assigning each of said plurality of users to one of the plurality of codes so that each of said plurality of users does not have an interfering code with an adjacent user;
moving the plurality of users;
continually monitoring the plurality of users for an interference;
when one of the plurality of users interferes with another of said plurality of users, assigning a non-interfering code to said one of the plurality of users.